

THE MODERN NAMES FOR CATESBY'S PLANTS

RICHARD A. HOWARD AND GEORGE W. STAPLES

MARK CATESBY (1682–1749) collected plants in the southeastern United States from Maryland to Florida between 1712 and 1719 and again between 1722 and 1725 (Reveal, 1983). During part of 1725, before his return to England in 1726, he collected in the Bahama islands of New Providence, Abaco, Andros, and Eleuthera (Britton & Millspaugh, 1920). Dried specimens, as well as seeds and possibly living plants, were sent to correspondents and sponsors in England and Europe (Allen, 1937). Plants and animals were sketched in the field, and drawings were occasionally done from plants grown from seeds or under cultivation in Europe. Catesby (1731, p. xi) said, "As I was not bred a Painter I hope some faults in Perspective, and other Niceties may be more readily excused. . . ." Unfortunately, two drawings are so inaccurate that they still cannot be identified.

The Natural History of Carolina, Florida and the Bahama Islands, termed "a pioneer contribution to the natural history of the West Indies as well as to that of the southern United States" (Stearn, 1958, p. 328), was published in parts between 1730 and 1743, with an appendix appearing in 1747. The work was soon cited by J. F. Gronovius in his *Flora Virginica*. Linnaeus cited many but not all of Catesby's plates in *Species Plantarum* (ed. 1, 1753; ed. 2, 1762, 1763), *Systema Naturae* (ed. 10, 1759), *Centuria II. Plantarum* (1756; contains a single reference to *Vinca lutea*), *Mantissa Plantarum* (1767), and *Mantissa Plantarum Altera* (1771).

Catesby's plates appear to be the types of twenty-five recognized taxa, of which twenty-one were described by Linnaeus and four by subsequent authors. They are also the types of an additional twelve synonymous names. Typotype¹ specimens from the Sloane herbarium have been indicated for some species, primarily by Dandy (1958). Linnaeus may have seen some of Catesby's collections when he visited Gronovius (1735) or Sherard (1736). It is generally stated that the plate is the type, and supporting specimens "in the Sloane set can be associated with certain of the plates" (Stafleu, 1967, p. 78). Not all of Catesby's plates have been satisfactorily identified, in spite of existing listings. In a search of the Sloane herbarium (BM) and the Sherard and Du Bois herbaria (OXF), no specimens were found to aid in the identification of *plates* 30, 45, or 52 in volume two. Catesby's specimens are also known to occur in the general herbarium at the British Museum (Natural History). These are primarily from

¹Typotype: a specimen that served as the basis for a published illustration or description subsequently designated as the type of a validly published name. Typotype specimens have no nomenclatural standing but may be considered as supporting evidence in the interpretation of ambiguous or incomplete type descriptions or illustrations.

the Gronovius and the Samuel Dale herbaria. Sir Joseph Banks had acquired the Gronovius herbarium, and the Dale herbarium had been presented to the Society of Apothecaries at the Chelsea Physic Garden. Both herbaria were acquired by the British Museum (Natural History). Catesby's own holographic notes, although commonly attributed to the Oxford collections, also occur on various specimens in London (BM).

A second edition of Catesby's *Natural History* was edited by George Edwards and published in 1754. A third edition, published in 1771, contained as an appendix credited to Edwards "A Catalogue of the Animals and Plants Represented in Catesby's Natural History of Carolina: with the Linnaean names." Also in 1771 Johann Reinhold Forster published a translation of J.-B. Bossu's *Travels Through that Part of North America Formerly Called Louisiana*, to which he added (Volume 2, pp. 17-67) "A Systematic Catalogue of all the Known Plants of English North-America, or, a Flora Americae Septentrionalis." Forster cited many but not all of Catesby's plates, with references to Linnaeus's works. It is possible that both Edwards and Forster obtained much of the information from the second edition of Gronovius's *Flora Virginica* (1762), where more of Catesby's plates are cited than in edition one and references are given to Linnaeus's *Species Plantarum*. Occasional references associating Catesby's plates with Linnaean names are also found in Adanson's *Familles des Plantes* (1763).

Modern names for Catesby's plants and plates have been suggested by various twentieth-century authors. The first comprehensive treatment was that by Britton and Millspaugh in *The Bahama Flora* (1920), where all but one of Catesby's plants from the Bahama Islands were identified under the then-accepted names. Regrettably, Catesby's polynomials were not listed in the index, and some of the suggestions of Britton and Millspaugh have therefore been overlooked by subsequent authors. In *The Sloane Herbarium* Dandy (1958) identified a few of Catesby's polynomials and plates and associated them with typotypes in that herbarium. Stevenson (1961) in a treatment of Catesby in volume two of the *Catalogue of Botanical Books in the Collection of Rachel McMasters Miller Hunt*, suggested a few identifications. In 1974 the Beehive Press, Savannah, Georgia, issued a partial facsimile of Catesby's work, with reproduction of a number of the colored plates together with the related text. An accompanying volume contains an historical introduction by George Frick, notes by Joseph Ewan, and black and white reproductions of all the plates. Ewan suggested determinations of all of the plants and birds illustrated by Catesby, but we do not agree with all of his names. Since the facsimile reproduction and the text have not been widely distributed and no reprints of the folio-sized text are available, we believe that the following lists and comments should be useful.

Catesby's collections (BM, OXF) (Clokier, 1964) are more extensive than those illustrated in his *Natural History*. These have not been cited, to our knowledge, and have no bearing on modern nomenclature, but they are of interest since some represent introduced taxa or give clues to his collecting localities. The search for typotype specimens of the species illustrated involved all of the specimens in volumes 212 and 232 of the Sloane herbarium (BM), and are so cited. Commonly mounted with other collections, the specimens are small or fragmentary and may occur on several pages. The Sherard and Du Bois herbaria (OXF) are retained as historic herbaria, often without separation to modern

families or genera. A large number of Catesby's specimens with holographic notes were found in the unidentified material at Oxford; these have been annotated, with a decision pending where they will be filed.

This work began with the need for the modern nomenclature of Catesby's illustrations. These were cited in an unpublished manuscript of Alexander Anderson, the second director of the St. Vincent Botanical Garden (1785–1811), who introduced Bahama plants to that garden and supplied binomials himself. The work on Anderson, including visits to London and Oxford, was supported by a much-appreciated grant to the senior author by the Stanley Smith Horticultural Trust. We are also grateful to the curatorial staff at the British Museum (Natural History) and the Fielding-Druce Herbarium at Oxford. We particularly value the comments of Charles Jarvis (BM, LINN), who is endeavoring to typify the Linnaean taxa in *Species Plantarum*. Our cooperative colleague, Dr. Leslie Garay, supplied the identifications of the Orchidaceae.

In the following notes, the plants that Catesby described and illustrated have been arranged alphabetically by families and genera. All names that we have determined to be based on Catesby's illustrations are marked with an asterisk. The plants are cited as plates by volume and number—for example (1: t. 11). Catesby's descriptive phrases in Latin and his common names are given, with spelling, punctuation, and capitalization as in the first edition of *Natural History*. Comments are made on the typification. Associated specimens are cited for the Sloane herbarium (H.S.), the general herbarium of the British Museum of Natural History (BM), the Dale herbarium (BM-Dale), the Sherard herbarium (OXF-S), and the Du Bois herbarium (OXF-DB). A list is supplied, numerically arranged, with our suggested identifications of plates in volumes 1 and 2, including the Appendix.

GYMNOSPERMAE

TAXODIACEAE

Taxodium distichum (L.) Rich. (1: t. 11)

Cupressus Americana. Cypress of America.

Cupressus disticha L. Sp. Pl. 1003. 1753. Catesby, Hortus Upsal., Gronovius, and others are cited. (H.S. 212, f. 4 (left); 232, f. 69, f. 85.)

ANGIOSPERMAE – MONOCOTYLEDONEAE

AMARYLLIDACEAE

Hymenocallis caroliniana (L.) Herb.* (2(App.): t. 5)

Lilio-Narcissus Polianthus, flore albo.

Pancratium carolinianum L. Sp. Pl. 291. 1753. Linnaeus cited only Catesby. Dandy (1958, p. 112) noted that the plate is the type. Sealey (Kew Bull. 1954: 234–236) commented on the illustration and recognized the species under *Hymenocallis*, but noted that it had not been re-collected in the area where Catesby is known to have traveled. It is represented by only a single collection. No current floras of the southeastern United States recognize the species, but it is listed in Correll and Johnston (Manual of the Vascular Plants of Texas, 1970) for Texas.

Zephyranthes atamasco (L.) Herb. (2(App.): t. 12)*Lilio narcissus Virginiensis*. Attamusco Lily.*Amaryllis atamasca* L. Sp. Pl. 292. 1753. Catesby, Hortus Clifort., Gronovius, and others were cited. (BM-Dale.)

ARACEAE

Orontium aquaticum L. (1: t. 82)*Arum aquaticum minus*; *S. Arisarum fluitans pene nudo Virginianum*.*Orontium aquaticum* L. Sp. Pl. 324. 1753. Catesby was not cited.**Peltandra virginica** (L.) Schott & Engler (1: t. 83)*Arum Sagitariae folio angusto, acumine & auriculis acutissimis*.Ewan (1974, p. 94) identified this illustration as *P. sagittaefolia* (Michx.)

Morong, which has a white spathe and red berries.

Symplocarpus foetidus (L.) Nutt. (2: t. 71)*Arum Americanum*, *Betae folio*. Scunk Weed.*Dracontium foetidum* L. Sp. Pl. 967. 1753. Catesby was not cited.Unidentified *Alocasia* or *Xanthosoma* (2: t. 45)*Arum maximum Aegyptiacum*, *quod vulgo Colocasia*.

The plate shows an inflorescence and a folded leaf, neither of which represents *Colocasia esculenta* (L.) Schott, the identification suggested by Ewan (1974). Catesby stated:

The roots of this Plant are tuberous, with many small Fibres growing from them; some of them weigh six or eight Pound, of an irregular Form, the Outside of a rusty brown colour, the Inside white. The Leaves grow out of the Earth, with only their Foot-stalks, to the Height of four or five Feet; they are shaped somewhat like a Heart, of a pale Green, very ample, some of them being two Feet wide, and more in Length. The Flower in Form resembles that of the common *Arum*, tho' in Colour different, the Hood is green without, and of a light yellow within; the Pistil is long and slender, of a light purple Colour.

Sir *Hans Sloane*, has so amply treated of this useful Plant, that I shall ask Leave only to add a few Remarks more. It is a Tropick Plant, not caring to encrease much in *Carolina*, and will grow no where North of that Colony; yet the Negro's there (who are very fond of them) by annually taking up the Roots to prevent rotting, get a small Encrease: They are of so acrimonious a Quality, that there is a Necessity of boiling them eight or ten Hours before they are eatable. A little before I left *Carolina*, there was introduced a new Kind, wholly without that bad Quality, and requiring no more than common Time to boil them, and may be eat raw, without offending the Throat or Palate; this was a welcome Improvement among the Negro's, and was esteemed a Blessing; they being delighted with all their *African* Food, particularly this, which a great Part of *Africa* subsists much on.

This later introduction may be *Colocasia esculenta* (L.) Schott.

BROMELIACEAE

Catopsis berteroniana (Schultes) Mez (2: t. 77)*Viscum Caryophylloides*, *Aloës foliis viridibus acuminatis, floribus racemosis luteis*.**Tillandsia balbisiana** (Schultes) Roemer & Schultes (2: t. 89)*Viscum Cariophylloides angustifolium*, *Floribus longis tubulosis caeruleis, ex spicis squamosis caeruleis erumpentibus*. Wild Pine.

COMMELINACEAE

Commelina virginica L. (2: t. 62)

Pseudo-Phalangium ramosum.

Commelina virginica L. Sp. Pl. ed. 2. 61. 1762. Catesby was not mentioned. (H.S. 212, f. 6, f. 57.)

GRAMINEAE

Oryza sativa L. (1: t. 14)

Rice.

Oryza sativa L. Sp. Pl. 333. 1753. Catesby, Hortus Cliffort., and others were cited.

Uniola paniculata L. (1: t. 32)

Gramen Myloicophoron Oxyphyllon Carolinianum, &c. Sea-side Oat.

Uniola paniculata L. Sp. Pl. 71. 1753. Catesby, Hortus Cliffort., and Gronovius were cited.

HYDROCHARITACEAE

Thalassia testudinum König (2: t. 38)

Alga marina, graminea angustissimo folio.

Catesby was not cited by König. (H.S. 232, f. 13.)

HYPOXIDACEAE

Hypoxis sp. (1: t. 33)

Ornithogalum luteum parvum folijs gramineis glabris. Little yellow Star-Flower.

Ewan (1974, p. 92) cited this illustration as *Hypoxis hirsuta* (L.) Cav., which is based on *Ornithogalum hirsutum* L. (Sp. Pl. 306. 1753). Linnaeus did not cite Catesby. No supporting specimen could be found, and the plant may well be *Hypoxis juncea* J. E. Sm.

LILIACEAE

Lilium canadense L. (2(App.): t. 11)

Lilium sive Martagon Canadense, floribus magis flavis, non reflexis.

Lilium canadense L. Sp. Pl. 303. 1753. Catesby, Morison, and others were cited.

Lilium catesbaei Walter (2: t. 58)

Lilium Carolinianum, flore croceo punctato, petalis longioribus & angustioribus. Red Lilly.

Catesby was not mentioned in Walter's description (Fl. Carolin. 123. 1788).

Lilium philadelphicum L. (2(App.): t. 8)

Lilium angustifolium, flore rubro singulari.

Lilium philadelphicum L. Sp. Pl. ed. 2. 435. 1762. Catesby was not mentioned in the original description, and the type is presumably Miller, Fig. Pl. Gard. Dict. 2: t. 165, fig. 1. 1760.

Lilium superbum L. (2: t. 56)

Lilium, sive Martagon Canadense, flore luteo punctato.

Lilium superbum L. Sp. Pl. ed. 2. 424. 1762. Miller, Trew, Ehret, and Catesby were cited. Ewan (1974, p. 97) called this illustration *Lilium michauxii* Poiret.

Trillium catesbaei Ell.* (1: t. 45)

Solanum triphyllion flore hexapetalo carneo.

Catesby was not mentioned in the original description (Sketch Bot. S.-Carolina Georgia 1: 429. 1817). Dandy (1958, p. 112) stated that the plant is *Trillium catesbaei* Ell., with a typotype specimen H.S. 212, f. 59 (flower, lower row, second from right). See also A. B. Rendle (Jour. Bot. London 39: 322–325. 1901).

Trillium maculatum Raf.* (1: t. 50)

Solanum triphyllon flore hexapetalo tribus petalis purpurejs erectis coeteris viridibus reflexis.

Linnaeus cited Catesby, Gronovius, and Plukenet in the protologue of *Trillium sessile* L. (Sp. Pl. 340. 1753). Dandy (1958, p. 112) stated that Catesby's illustration is *Trillium maculatum* Raf., with a typotype H.S. 212, f. 59 (flower, lower right), and this selection has been confirmed by J. D. Freeman (Brittonia 27: 27. 1975).

ORCHIDACEAE

Cleistes divaricata (L.) Ames (1: t. 58, above)

Helleborine Liliifolio caulem ambiente, flore unico hexapetalo, tribus petalis longis angustis obscure purpureis, caeteris brevioribus roseis. Lilly-leaf'd Helebore.

Arethusa divaricata L. Sp. Pl. ed. 2. 1346. 1763. Catesby and Gronovius were cited.

Cypripedium acaule Aiton (2: t. 72)

Helleborine. Lady's Slipper of Pensilvania.

Ewan (1974, p. 98) identified this illustration as *Cypripedium calceolus* L. The plate is also the type of *Cypripedium vittatum* Vell. var. *planum* Raf. (Herb. Raf. 44. 1833).

Cypripedium acaule Aiton (2(App.): t. 3)

Calceolus, flore maximo rubente, purpureis venis notato, foliis amplis hirsutis crematis, radice dentis canini.

This illustration is the type of *Cypripedium catesbianum* Raf. (Herb. Raf. 44. 1833). Rafinesque cited the third edition of Catesby (1771), with this plate as "t. 103."

Cypripedium pubescens Willd. (2: t. 73)

Calceolus Marianus glaber, Petalis angustis. Yellow Lady's Slipper.

Ewan (1974, p. 98) referred this illustration to *Cypripedium calceolus* L. var. *pubescens* (Willd.) Correll. The plate is also the type of *Cypripedium vittatum* Vell. var. *tortile* Raf. (Herb. Raf. 44. 1833).

Epidendrum boothianum Lindley (2: t. 74)

Viscum Caryophylloides, floribus parvis luteis punctatis.

Ewan (1974) identified this illustration as *Epicladium boothianum* (Lindley) Small.

Epidendrum cochleatum L. (2: t. 88, right)

Viscum Caryophylloides, Lili albi foliis, Floris labello brevi purpureo, ceteris Petalis ex luteo virescentibus.

Epidendrum cochleatum L. Sp. Pl. ed. 2. 1351. 1763. Sloane, Catesby, and Plumier were cited. The Plumier reference (Burman, Pl. Am. 180. t. 185, fig. 2. 1759) has been chosen as the lectotype.

Epidendrum nocturnum Jacq. (2: t. 68)

Viscum Caryophylloides, foliis longis in apice incisis, floris labello albo trifido, petalis luteis, longis angustissimis.

Epidendrum nocturnum L. Sp. Pl. ed. 2. 1349. 1763. Catesby and Jacquin (Select. Stirp. Am. Hist. t. 139) were cited. Jacquin's figure has been chosen as the lectotype.

Epidendrum plicatum Lindley (2: t. 88, left)

Viscum radice bulbosa; Floris labello carneo, ceteris sordide luteis.

Polystachya concreta (Jacq.) Garay & Sweet (2: t. 55)

Viscum Caryophylloides ramosum, floribus minimis albis.

Ewan (1974, p. 97) called this illustration *Polystachya minuta* (Aublet) Britton.

Vanilla mexicana Miller (2(App.): t. 7)

Volubilis siliquosa mexicana plantagini folio.

Epidendrum vanilla L. Sp. Pl. 952. 1753. Catesby and others were cited.

Ewan (1974, p. 99) referred this illustration to *Vanilla planifolia* Andr.

SMILACACEAE

Smilax lanceolata L. (2: t. 84, below)

Smilax non Spinosa baccis rubris.

Smilax lanceolata L. Sp. Pl. 1031. 1753. Catesby was not cited. (OXF-DB, OXF-S.)

Smilax laurifolia L. (1: t. 15)

Smilax laevis, Lauri folio, baccis nigris. Bay-leaved Smilax.

Smilax laurifolia L. Sp. Pl. 1030. 1753. Catesby and Gronovius were cited. (OXF-S.)

Smilax pumila Walter (1: t. 47)

Smilax non spinosa, humilis, folio Aristolochiae, baccis rubris.

Catesby was not cited in the original description (Fl. Carolin. 244. 1788.)

Ewan (1974, p. 93) referred this illustration to *Smilax herbacea* L.

Smilax tamnoides L. (1: t. 52)

Smilax Bryoniae nigrae folijs caule spinoso, baccis nigris.

Linnaeus (Sp. Pl. 1030. 1753) cited only Catesby; however, a specimen obtained by Kalm (LINN 1132.10) is preferable as a lectotype. Ewan (1974, p. 93) referred this illustration to *Smilax bona-nox* L. (H.S. 232, f. 31; OXF-DB; OXF-S.)

ANGIOSPERMAE – DICOTYLEDONEAE

ACERACEAE

Acer rubrum L. (1: t. 62)

Acer Virginianum, folio majore, subtus argenteo, suprà viridi splendente.
Red flowering Maple.

Linnaeus (Sp. Pl. 1055. 1753) cited Catesby, Hortus Upsal., Gronovius, and others. (H.S. 212, f. 14; 232, f. 32.)

ANACARDIACEAE

Anacardium occidentale L. (2(App.): t. 9)

Pomifera, seu potius prunifera Indica, nuce viniformi summo pomo in-nascente, Cajous vel Acajous dicta. Cushew Tree.

Linnaeus (Sp. Pl. 383. 1753) cited Catesby, Hortus Cliffort., and others.

Metopium toxiferum (L.) Krug & Urban (1: t. 40)

Toxicodendron folijs alatis fructu purpureo Pyri formi sparso. Poison-Wood.
Amyris toxifera L. Syst. Nat. ed. 10. 1000. 1759. Linnaeus cited Catesby and Hortus Cliffort.

Rhus glabra L. (2(App.): t. 4)

Rhus glabrum Panicula speciosa coccinea.

Linnaeus (Sp. Pl. 265. 1753) cited Gronovius and others, but not Catesby.

ANNONACEAE

Annona glabra L.* (2: t. 64)

Anona maxima, foliis latis fructu maximo luteo conoïde, cortice glabro.

Linnaeus (Sp. Pl. 537. 1753) cited only Catesby but supplied a new phrase name. No supporting specimens have been located. Dandy (1958, p. 112) stated that the plate was the type.

Annona glabra L. (2: t. 67)

Anona fructu viridi laevi, Pyri inversi forma.

This illustration has been referred to *Annona palustris* L. (Sp. Pl. ed. 2. 757. 1762). Catesby was not cited, and the species is regarded as a synonym of *Annona glabra* L. (1753). Ewan (1974, p. 97) called this illustration *Annona cherimolia* Miller. No associated specimens have been located to verify the identification either way.

Annona reticulata L. (2: t. 86)

Anona maxima, foliis oblongis, angustis; fructu maximo luteo conoïde; cortice glabro in areolas angulares distincto.

Linnaeus (Sp. Pl. 537. 1753) cited Catesby, Sloane, and Ray. Fawcett and Rendle (Fl. Jamaica 3: 198. 1914) designated "Sloane Herb. vii. 94" as the type specimen.

Asimina triloba (L.) Dunal* (2: t. 85)

Anona fructu lutescente, laevi, scrotum Arietis referente.

Annona triloba L. Sp. Pl. 537. 1753. Only Catesby was cited, although a new phrase name was used. Dandy (1958, p. 112) stated that the plate is the type.

APOCYNACEAE

Echites umbellata Jacq. (1: t. 58, below)

Apocynum Scandens folio, cordato flore albo. Dogs-bane.

Tabernaemontana echites L. Syst. Nat. ed. 10. 945. 1759. Only Sloane was cited.

Plumeria obtusa L.* (2: t. 93, above)

Plumeria flore niveo, foliis brevioribus obtusis.

Linnaeus (Sp. Pl. 209. 1753) cited only Catesby. Dandy (1958, p. 112) stated that the plate is the type.

Plumeria rubra L. (2: t. 92)

Plumieria Flore Roseo odoratissimo.

Linnaeus (Sp. Pl. 209. 1753) cited Catesby, Hortus Cliffort., and others.

Urechites lutea (L.) Britton* (2: t. 53)

Apocynum Scandens, Salicis folio, flore amplo pleno.

Vinca lutea L. Cent. II. Pl. 12. 1756. Dandy (1958, p. 112) called the plate the type. *Echites catesbaei* G. Don (Gen. Syst. 4: 74. 1838), now regarded as a synonym of *Urechites lutea*, is also based on Catesby's plate.

AQUIFOLIACEAE

Ilex cassine L. (1: t. 31)

Agrifolium Carolinense folijs dentatis baccis rubris. Dahoon Holly.

Linnaeus (Sp. Pl. 125. 1753) cited Catesby and Hortus Cliffort. (H.S. 212, f. 65. (upper left).)

Ilex vomitoria Aiton (2: t. 57)

Cassena vera Floridanorum, Arbuscula baccifera Alaternifacie, foliis alternatim sitis, tetrapyrene.

Ilex cassine var. β , L. Sp. Pl. 125. 1753. The variety remains unnamed, and Linnaeus cited Catesby and Plukenet. The type of Aiton's taxon (Hortus Kew. 1: 170. 1789) is presumably a cultivated plant. Rehder (Jour. Arnold Arb. 3: 212–215. 1922) discussed the fact that the older name, *Cassine Paragua* Miller (Gard. Dict. ed. 8. no. 2. 1768), based on Catesby's plate, may be considered a later homonym of *Cassine Peragua* L. (Sp. Pl. 268. 1753).

ARALIACEAE

Panax quinquefolius L. (2(App.): t. 16)

Aureliana Canadensis R. P. Lafiteau. Ginseng.

Linnaeus (Sp. Pl. 1058. 1753) cited Catesby, Gronovius, and others.

ARISTOLOCHIACEAE

Aristolochia serpentaria L. (1: t. 29)

Aristolochia pistolochia seu Serpentaria Virginiana caule nodoso. Snake-Root of Virginia.

Linnaeus (Sp. Pl. 961. 1753) cited Catesby and Gronovius.

BERBERIDACEAE

Podophyllum peltatum L. (1: t. 24)

Anapodophyllum Canadense Morini. May Apple.

Linnaeus (Sp. Pl. 505. 1753) cited Catesby, Hortus Cliffort., and Hortus Upsal. (H.S. 212, f. 63 (upper left).)

BIGNONIACEAE

Bignonia capreolata L. (2: t. 82)

Bignonia Americana, capreolis donata, siliqua brevior.

In the original description (Sp. Pl. 624. 1753) Linnaeus cited Hortus Cliffort., p. 317, but not Catesby. Further discussion was presented by Sprague (Jour. Bot. London 60: 236–238. 1922). Wilbur (Taxon 29: 299–303. 1980) has proposed conserving *Bignonia capreolata* L. as the lectotype of the genus *Bignonia* L.

Campsis radicans (L.) Seem. (1: t. 65)

Bignonia, Fraxini folijs, coccineo flore minore. Trumpet-Flower.

Bignonia radicans L. var. β , L. Sp. Pl. 625. 1753. Only Catesby was cited. Dandy (1958, p. 112) stated that the plate is the type of *Bignonia radicans* var. β . The unnamed variety was not recognized by Rehder (Bibliogr. Cult. Trees Shrubs, 1949). The color variation in various copies of the *Natural History* suggests that the variety is not worthy of recognition.

Catalpa bignonioides Walter (1: t. 49)

Bignonia Urucu folijs flore sordidé albo, intus maculis purpureijs & luteis asperso, siliqua longissima & angustissima. Catalpa Tree.

Bignonia catalpa L. Sp. Pl. 622. 1753. Catesby and Hortus Cliffort. were cited. (H.S. 212, f. 61; 232, f. 51.)

Jacaranda caerulea (L.) Griseb.* (1: t. 42)

Arbor Guajaci latiore folio, Bignoniae flore caeruleo, fructu duro in duas partes disiliente, seminibus alatis imbricatim posit. Broad leaf'd Guaicum, with blew Flowers.

Bignonia caerulea L. Sp. Pl. 625. 1753. Only Catesby was cited. Dandy (1958, p. 112) stated that the plate is the type, and H.S. 232, f. 12 (upper right) is the typotype specimen.

Tabebuia bahamensis (Northrop) Britton (1: t. 37)

Bignonia arbor pentaphylla flore roseo majore siliquis planis. Bignonia.

For *Bignonia pentaphylla* L. (Sp. Pl. ed. 2. 870. 1763) Linnaeus cited Catesby and others. This illustration is not *Tabebuia pentaphylla* (Juss.) Hemsley. (H.S. 232, f. 45 (lower right).)

BORAGINACEAE

Bourreria ovata Miers (2: t. 79)

Pittoniae similis, Laureolae folijs, floribus albis, baccis rubris.

In the protologue of *Ehretia bourreria* L. (Sp. Pl. ed. 2. 275. 1762), Linnaeus cited Catesby, Browne, Sloane, and others. In 1869 Miers (Ann. Mag. Nat. Hist. IV. 3: 207) cited Catesby "ii. tab. 79" in his description of the new species *Bourreria havanensis* Miers. In 1911 O. E. Schulz (*in* Urban, Symb.

Antill. 7: 60) excluded the Catesby citation when he referred *B. havanensis* Miers to the synonymy of *Beureria succulenta* var. *revoluta* (Kunth) Schulz. Schulz (*op. cit.*, p. 55) referred Catesby's illustration to *Beureria ovata* Miers, although it was not included in the original description of that species. (H.S. 232, f. 45 (upper right).)

***Cordia sebestena* L. (2: t. 91, above)**

Caryophyllus spurius inodorus, Folio subrotundo scabro, flore racemoso hexapetaloïde coccineo speciosissimo.

Linnaeus (Sp. Pl. 190. 1753) cited Catesby, Sloane, Dillenius, and Ray. (H.S. 232, f. 24, f. 33.)

BURSERACEAE

***Bursera simaruba* (L.) Sarg. (1: t. 30)**

Teribinthus major Betulae cortice, fructu triangulari. Gum-elimy Tree.

Pistacia simaruba L. Sp. Pl. 1026. 1753. Linnaeus cited Sloane and Catesby. Fawcett and Rendle (Fl. Jamaica 4(2): 206. 1920) stated, "Type in Herb. Sloane in Herb. Brit. Mus." Ewan (1974, p. 92) cited this plant under the synonymous name *Elaphrium simaruba* (L.) Rose.

CALYCANTHACEAE

***Calycanthus floridus* L. (1: t. 46)**

Frutex corni folijs conjugatis, floribus instar Anemones stellatae, petalis crassis, rigidis, colore sordidè rubente; cortice aromatico.

Linnaeus (Syst. Nat. ed. 10. 1066. 1759) cited Catesby, Ehret, Duhamel, and Miller. A lectotype has not been chosen. (H.S. 212, f. 16; BM-Dale.)

CANELLACEAE

***Canella winterana* (L.) Gaertner (2: t. 50)**

Arbor baccifera, laurifolia, aromatica, fructu viridi calyculato racemoso. Winter's Bark.

Laurus winterana L. (Sp. Pl. 371. 1753). Linnaeus cited Catesby, Hortus Cliffort., and Sloane.

CARYOPHYLLACEAE

***Silene virginica* L. (2: t. 54)**

Lychnis viscosa, Virginiana, flore amplo coccineo: seu Muscipula Regia.

Linnaeus (Sp. Pl. 419. 1753) cited only Gronovius. Specimens collected by Kalm and Pursh are in the Linnean herbarium. (H.S. 212, f. 18.)

CHRYSOBALANACEAE

***Chrysobalanus icaco* L. (1: t. 25)**

Frutex cotini fere folio crasso, in summitate deliquium patiente, fructu ovali coeruleo ossiculum angulosum continente. Cocoa Plum.

Linnaeus (Sp. Pl. 513. 1753) did not cite Catesby. Prance (Fl. Neotrop. 9: 15, 16. 1972) stated that the type was LINN 641.1.

CLETHRACEAE

Clethra alnifolia L. (1: t. 66)

Alni folia Americana serrata, floribus pentapetalis albis, in spicam dispositis.

Linnaeus (Sp. Pl. 176. 1753) cited Catesby and Gronovius. (H.S. 212, f. 50; 232, f. 35.)

CLUSIACEAE

Clusia rosea Jacq. (2: t. 99)

Cenchramidea Arbor saxi adnascens, obrotundo pingui folio; fructu pomiformi, in plurimas capsulas granula ficulnea, stilo columnari octogono praeduro adhaerentia continentes, diviso; Balsamum fundens. Balsam-Tree.

Linnaeus (Sp. Pl. ed. 2. 1493. 1763) cited Jacquin and Catesby. (H.S. 232, f. 8 (one leaf).)

COMBRETACEAE

Conocarpus erectus L. (2: t. 33, above)

Manghala arbor Curassavica, foliis Salignis. Button-Wood.

Linnaeus (Sp. Pl. 176. 1753) cited Hortus Cliffort., Sloane, and others, but not Catesby. (H.S. 232, f. 24.)

Laguncularia racemosa (L.) Gaertner (1: t. 86)

An Thymelaea foliis obtusis.

Conocarpus racemosus L. Syst. Nat. ed. 10. 930. 1759. Linnaeus did not cite Catesby. Britton and Millspaugh (1920, p. 646) were unable to identify this illustration. Although the plant described and illustrated by Catesby has alternate leaves, in all other characters it is clearly the white mangrove of the Bahamas.

COMPOSITAE

Borrichia arborescens (L.) DC. (1: t. 93)

Chrysanthemum Bermudense Leucoji foliis virentibus crassis.

Bupthalmum frutescens L. Syst. Nat. ed. 10. 1227. 1759. Linnaeus cited only Plumier.

Echinacea purpurea (L.) Moench (2: t. 59)

Chrysanthemum Americanum, Doronici folio, flore Persici coloris, umbone magno prominente ex atro purpureo, viridi, & aureo fulgente.

Rudbeckia purpurea L. Sp. Pl. 907. 1753. Linnaeus cited Catesby, Gronovius, and others.

Salmea petrobioides Griseb. (1: t. 72)

Arbor maritima, foliis conjugatis pyriformibus apice in summitate instructis, floribus racemosis luteis.

The type of the Grisebach species is a collection by Swainson from the Bahamas. Catesby incorrectly described and illustrated the florets as yellow instead of white.

Wedelia bahamensis (Britton) O. E. Schulz (1: t. 92)

Although this plant is illustrated, there is no accompanying text. "*Chrysanthemum &c.*" appears on the plate in the lower right corner. The type of the basionym *Stemmodontia bahamensis* Britton is Britton and Brace 302, from the Bahamas. Catesby's plate was cited by Britton and Millspaugh (1920, p. 451).

CONVOLVULACEAE

Ipomoea batatas (L.) Lam. (2: t. 60)

Convolvulus Radice tuberoso esculento. Virginian Potato.

Convolvulus batatas L. Sp. Pl. 154. 1753. Linnaeus cited Catesby, Hortus Cliffort., and others.

Ipomoea carolina L.* (2: t. 91, below)

Convolvulus minor Pentaphyllos, flore purpureo minore.

Linnaeus (Sp. Pl. 160. 1753) cited only Catesby. Dandy (1958, p. 112) stated that the plate is the type. (BM-Dale.)

Ipomoea microdactyla Griseb. (2: t. 87, below)

Convolvulus foliis variis, inferioribus trifariim divisis, superioribus sagittatis; floribus ex rubro purpureis.

Ipomoea sagittata Poiret (1: t. 35)

Convolvulus Caroliniensis angusto sagittato folio, flore amplissimo purpureo, radice crassa. Purple Bind-weed of Carolina. (OXF-DB.)

CORNACEAE

Cornus florida L. forma **rubra** (Weston) Schelle (1: t. 27)

Cornus mas Virginiana, flosculis in corymbo digestis perianthio tetrapetalo albo radiatim cinctis. Dogwood Tree.

Linnaeus (Sp. Pl. 117. 1753) cited Catesby, Gronovius, Hortus Cliffort., and Hortus Upsal. (H.S. 212, f. 5 (upper left, buds only); 233, f. 89 (buds); BM-Dale.)

EBENACEAE

Diospyros virginiana L. (2: t. 76)

Guajacana.

Linnaeus (Sp. Pl. 1057. 1753) cited Catesby, Gronovius, and Hortus Cliffort.

ERICACEAE

Kalmia angustifolia L. (2(App.): t. 17, left)

Chamaedaphne semper virens, foliis oblongis angustis, foliorum fasciculis oppositis è foliorum alis.

Linnaeus (Sp. Pl. 391. 1753) cited Catesby, Gronovius, and Plukenet.

Kalmia latifolia L. (2: t. 98)

Chamaedaphne foliis Tini, floribus bullatis umbellatis.

Linnaeus (Sp. Pl. 391. 1753) cited Catesby, Gronovius, and Plukenet. (H.S. 212, f. 64 (lower right, flowers); 232, f. 54 (fruit).)

Leucothoë racemosa (L.) A. Gray (2: t. 43)

Frutex foliis serratis, floribus longioribus spicatis subviridibus, capsula pentagona.

Linnaeus (Sp. Pl. 394. 1753) cited Catesby and others in the protologue of *Andromeda paniculata* L. Rehder cited "*Andromeda paniculata* L. p.p. max." in the synonymy of *Leucothoë racemosa*. The type of *Andromeda racemosa* L. (Sp. Pl. 394. 1753), the basionym, is a specimen collected by Kalm (LINN 563.15).

Oxydendrum arboreum (L.) DC.* (1: t. 71)

Frutex folijs oblongis acuminatis, floribus spicatis unoversu dispositis. Sorrel-Tree.

Andromeda arborea L. Sp. Pl. 394. 1753. Linnaeus cited Catesby and "Gronovius virg. 48." The latter reference is to Catesby, and the illustration may well be the type. (H.S. 212, f. 60; 232, f. 57; BM-Dale. No material is in the Linnean herbarium.)

Rhododendron maximum L. (2(App.): t. 17, right)

Chamaerhododendros lauri-folio semper virens, floribus bullatis corymbosis.

Linnaeus (Sp. Pl. 392. 1753) cited Catesby and "Amoen. Acad. 2. p. 201."

Rhododendron viscosum (L.) Torrey var. **aemulans** Rehder (1: t. 57)

Cistus Virginiana, flore & odore Periclymeni. Upright Honysockle.

Azalea viscosa L. (Sp. Pl. 151. 1753). Linnaeus cited Catesby, Gronovius, and others. A specimen collected by Kalm is in the Linnean herbarium.

EUPHORBIACEAE

Croton eluteria (L.) Sw.* (2: t. 46)

An Ricinoides Aeleagni folio? Ilathera Bark.

Linnaeus (Sp. Pl. 1042. 1753) ended his description of *Clutia cascarilla* L. with a dagger symbol, suggesting an imperfectly known species or some doubt or uncertainty; he cited only Catesby. Dandy (1958, p. 112) stated that the plate was the type. Millspaugh (Publ. Field Mus. Bot. 2: 306–308. 1909) concluded that this was the same as *Clutia eluteria* L., for which Linnaeus (Sp. Pl. 1042. 1753) cited Hortus Cliffort. and others. Millspaugh combined the taxa on the basis of page priority and accepted the name *Croton eluteria* (L.) Sw. In reaching this conclusion, he also noted the inaccuracy of Catesby's drawing and the fact that Linnaeus later (Sp. Pl. ed. 2. 1424. 1763) changed the description of *Clutia cascarilla* to apply to a taxon known as *Croton linearis* Jacq. Ewan (1974, p. 96) accepted *Croton eluteria* (L.) Sw. for Catesby's plate and stated that the typotype was "H.S. 232, f. 24 [upper left]."

Hippomane mancinella L. (2: t. 95, above)

Mancanilla Pyri facie. Mancaneel-Tree.

Linnaeus (Sp. Pl. 1191. 1753) cited Catesby, Hortus Cliffort., Sloane, and others. (H.S. 232, f. 5, f. 7.)

Phyllanthus epiphyllanthus L. (2: t. 26)

Phylanthos Americana Planta flores ad foliorum crenas proferans.

Linnaeus (Sp. Pl. 981. 1753) cited Catesby, Hortus Cliffort., and others. Webster (Jour. Arnold Arb. 39: 109. 1958) stated that the type was Hortus Cliffort. 439.1 (BM). Ewan (1974, p. 96) used the synonymous name *Xylophylla epiphyllanthus* (L.) Britton for this illustration.

Picrodendron baccatum (L.) Krug & Urban (2: t. 32)

Tapia trifolia fructu majore oblongo.

Juglans baccata L. Syst. Nat. ed. 10. 1272. 1759. Linnaeus cited "Brown jam. 346. n. 2." Ewan (1974, p. 96) suggested the synonymous name *Picrodendron macrocarpum* (Rich.) Britton.

FAGACEAE

Castanea pumila (L.) Miller (1: t. 9)

Castanea pumila Virginiana, fructu racemato parvo in singulis capsulis echinatis unico. Chinkapin.

Fagus pumila L. Sp. Pl. 998. 1753. Linnaeus cited Catesby, Gronovius, and others, indicating with an asterisk that a good description was in Gronovius.

Quercus alba L. (1: t. 21, left)

Quercus alba Virginiana. White Oak.

Linnaeus (Sp. Pl. 996. 1753) cited Catesby and Gronovius.

Quercus incana Bartram (1: t. 22)

Quercus humilior salicis folio brevior. Highland Willow Oak.

Dandy (1958, p. 112) stated that the plate is the type of *Quercus phellos* L., with a typotype specimen H.S. 212, f. 78. However, Linnaeus cited only Catesby's t. 22 for his *Quercus phellos* var. γ (Sp. Pl. 994. 1753). Michaux (Hist. Chênes Am. 8. t. 14. 1801) cited Catesby when he described *Quercus cinerea* Michx. Sargent (Silva 8: 172. 1895) raised an earlier variety to specific level as *Quercus brevifolia* Sarg., noting that it was first illustrated and described by Catesby. Bartram's name (Travels N. S. Carolina, 378. 1791) is the oldest and is currently accepted in many floras but does not appear to have been typified.

Quercus laevis Walter (1: t. 23)

Quercus Esculi divisura foliis amplioribus aculeatis. Red Oak.

The Catesby reference and others were cited by Linnaeus under his *Quercus rubra* L. (Sp. Pl. 996. 1753). The plate is also the type of *Quercus catesbaei* Michx. (Hist. Chênes Am. 17. tt. 29, 30. 1801), now considered a synonym of *Q. laevis* Walter (Fl. Carolin. 234. 1788), for which no specimen or reference was cited in the original description. Ewan (1974, p. 92) identified the illustration as *Quercus rubra* L.

Quercus marilandica Muenchh.* (1: t. 19)

Quercus (forte) Marilandica, folio trifido ad Sassafras accedente. Black Oak.

Linnaeus (Sp. Pl. 996. 1753) cited only Catesby under his *Quercus nigra* L. var. β . Dandy (1958, p. 112) stated that the plate is the type of *Quercus*

nigra L. var. β , with the typotype H.S. 232, f. 93. Muenchhausen (Hausvater 5: 252. 1770) cited only Catesby's plate.

Quercus nigra L. (1: t. 20, above)

Quercus folio non serrato, in summitate quasi triangulo. Water-Oak.
Linnaeus (Sp. Pl. 995. 1753) cited Catesby and Gronovius.

Quercus phellos L. (1: t. 16)

Quercus, An potius Ilex Marilandica folio longo angusto salicis? Willow oak.

Linnaeus (Sp. Pl. 994. 1753) cited Catesby, Gronovius, and Ray for the typical variety. (H.S. 212, f. 77 (upper); 232, f. 98.)

Quercus prinus L. (1: t. 18)

Quercus castaneae foliis, procera arbor virginiana. Chesnut-Oak.

Linnaeus (Sp. Pl. 995. 1753) cited Catesby, Hortus Cliffort., Gronovius, and others. A Hortus Cliffort. specimen is in the Linnean herbarium. (H.S. 232, f. 14.)

Quercus rubra L. (1: t. 21, right)

Quercus Caroliniensis virentibus venis muricata. White Oak, with pointed Notches.

Linnaeus (Sp. Pl. 996. 1753) cited Catesby, Hortus Cliffort., and others for *Quercus rubra* var. β . (H.S. 212, f. 5 (right).)

Quercus virginiana Miller (1: t. 17)

Quercus sempervirens, foliis oblongis non sinuatis. Live-Oak.

For *Quercus phellos* var. β , Linnaeus (Sp. Pl. 994. 1753) cited only Catesby. Dandy (1958) stated that the plate is the type, with the typotype H.S. 212, f. 81 (lower). Trelease (Mem. Natl. Acad. Sci. 20: 157. t. 8. 1924) referred this variety to the synonymy of *Quercus virginiana*.

FLACOURTIACEAE

Banara minutiflora (A. Rich.) Sleumer (2: t. 42, right)

Frutex foliis oblongis serratis alternis, Acaciae floribus luteis, fructu brevi, calyculato viridi.

Britton and Millspaugh (1920, p. 284) and Ewan (1974, p. 96) referred Catesby's illustration to *Banara reticulata* Griseb. (1860). Sleumer (Fl. Neotrop. 22: 88. 1980) proposed the new combination based on the older (1845) *Ilex minutiflora* A. Rich.

GENTIANACEAE

Gentiana catesbaei Walter (1: t. 70)

Gentiana Virginiana, Saponariae folio, flore coeruleo longiore.

For *Gentiana saponaria* L. (Sp. Pl. 228. 1753) Linnaeus cited Catesby, Gronovius, and Morison. We are unable to find any information on the typification of this name, although a specimen collected by Kalm is in the Linnean herbarium. Catesby's illustration appears to have the partially opened flowers of *G. saponaria* but was identified as *G. catesbaei* Walter by Ewan (1974, p. 94). Fernald (Rhodora 49: 175, 176. 1947) recognized *G. catesbaei* Walter after that name had been in the synonymy of *G. saponaria* L. for

many years. Fernald saw a specimen in Walter's herbarium, which he illustrated. He commented: "Although Walter did not cite Catesby's plate, his intent in giving the name of *G. Catesbaei* is pretty obvious." Fernald quoted Curtis (Boston Jour. Nat. Hist. **1**: 128. 1835) as having said "Tab. 70 of Catesby's Carolina, represents it" and concluded, "There should be no question about the identity of *G. Catesbaei*." A possible typotype specimen, H.S. 212, f. 87 (lower right), was not dissected, rendering impossible the use of corolla characters given in local floras.

GOODENIACEAE

Scaevola plumieri (L.) Vahl* (**1**: t. 79)

Lobelia frutescens, *Portulacae folio*.

Lobelia plumierii L. Sp. Pl. 929. 1753. Linnaeus cited "Fl. Zey. 313, Plum. gen. 21," and Catesby. Jeffrey (Kew Bull. **34**: 543. 1980) designated Catesby's plate as the lectotype.

HAMAMELIDACEAE

Hamamelis virginiana L. (2(App.): t. 2)

Hamamelis.

Linnaeus (Sp. Pl. 124. 1753) cited Catesby, Gronovius, and others. A specimen collected by Kalm is in the Linnean herbarium. (H.S. 212, f. 4 (right).)

Liquidambar styraciflua L. (2: t. 65)

Liquid-ambari Arbor, seu Styraciflua, Aceris folio, fructu Tribuloide, i.e. Pericarpio orbiculari ex quam plurimis apicibus coagmentato, semen recondens. Sweet Gum-Tree.

Linnaeus (Sp. Pl. 99. 1753) cited Catesby, Gronovius, Hortus Cliffort., Hortus Upsal., and others. A specimen collected by Kalm is in the Linnean herbarium. (H.S. 212, f. 79; 232, f. 34; BM-Dale.)

JUGLANDACEAE

Carya alba (L.) K. Koch (**1**: t. 38)

Nux Juglans alba Virginiensis. Hickory Tree.

Following Rehder's proposal (Jour. Arnold Arb. **26**: 483. 1945) to consider *Carya alba* L. a *nomen ambiguum*, this species has generally been known as *Carya tomentosa* (Poiret) Nutt. As Rehder indicated, Linnaeus had two taxa in the original description of *Juglans alba* (Sp. Pl. 997. 1753), in which Catesby, Gronovius, and Plukenet were cited. However, Crantz (Inst. Rei Herb. **1**: 157. 1766) listed only Catesby in his description of *Juglans alba*, thus typifying the Linnaean name by excluding the Plukenet and Gronovius references. Ewan (1974, p. 93) identified the figure as *C. tomentosa* (Poiret) Nutt. and stated "This identification applies to the fruit but the leaves are those of *Carya glabra* Mill. according to Dr. Donald E. Stone who says 'if one added trichomes to the drawing of the shoot it would pass for mockernut. *C. tomentosa* is what George Edwards must have been referring to as *Juglans*

alba L.” This unresolved problem we leave to specialists, who should examine a possible supporting specimen, H.S. 212, f. 3.

Carya cordiformis (Wangenh.) K. Koch (1: t. 38, smaller fruit)

Nux Juglans Carolinensis fructu minimo putamine levi. Pignut.

Ewan (1974, p. 93) identified this illustration, stating, “The description of the fruit fits this species according to Dr. Stone.”

Juglans nigra L. (1: t. 67)

Nux juglans nigra Virginiensis. Black Walnut.

Linnaeus (Sp. Pl. 997, 1753) cited Catesby and Hortus Cliffort. (H.S. 232, f. 94, f. 97.)

LAURACEAE

Ocotea coriacea (Sw.) Britton (2: t. 28, above)

Cornus, foliis Salicis Laureae acuminatis; floribus albis; fructu Sassafras.

Laurus coriacea Sw. (Prodr. 65, 1788) was based on material from Jamaica but occurs in the Bahamas (probably the source of Catesby’s material). Catesby’s plate is the type of *Laurus catesbyana* Michx. (Fl. Bor. Am. 1: 244, 1803), transferred by Sargent to *Ocotea* (Silva N. Am. 7: 11, 1895) and later to *Nectandra* (Garden Forest 2: 448, 1899), and now considered to be a synonym of *Ocotea coriacea* (Sw.) Britton.

Persea borbonia (L.) Sprengel* (1: t. 63)

Laurus Carolinensis, folijs acuminatis, baccis caeruleis, pediculis longis rubris insidentibus. Red Bay.

Laurus borbonia L. Sp. Pl. 370, 1753. Linnaeus cited Catesby, Hortus Cliffort., and Gronovius. Catesby’s plate was designated the lectotype by Kopp (Mem. N. Y. Bot. Gard. 14: 44, 1966). (H.S. 212, f. 1.)

Sassafras albidum (Nutt.) Nees var. ***molle*** (Raf.) Fern. (1: t. 55)

Cornus mas odorata, folio trifido margine plano, Sassafras dicta.

Laurus sassafras L. Sp. Pl. 371, 1753. Linnaeus cited Catesby, Hortus Cliffort., and others. (BM-Dale.)

LEGUMINOSAE

Acacia tortuosa (L.) Willd. (2: t. 44)

Arbor foliis pinnatis, spica pendula sericea.

Mimosa tortuosa L. Sp. Pl. ed. 2, 1505, 1763. The type is a specimen collected by Browne in Jamaica (LINN 1228.27).

Caesalpinia bahamensis Lam. (2: t. 51, above)

Pseudo-Santalum croceum. Brasiletto.

Linnaeus (Sp. Pl. 380, 1753) cited Catesby, Plumier, Ray, and Sloane in the protologue of *Caesalpinia brasiliensis*. Urban (Symb. Antill. 2: 286, 1900) noted that three species were involved, one being “*Caesalpinia bahamensis* Lam. (ex Catesb. Car. t. 51, cum patria erronea Carolina).” Lamarck (Encycl. Méth. Bot. 1: 461, 1785) had cited Miller, Sloane, and Catesby. *Caesalpinia brasiliensis* L. is typified by a Plumier reference and is endemic to Hispaniola. The Sloane description given by Linnaeus is *Peltophorum brasiliense* Urban (Symb. Antill. 2: 286, 1900), which was proposed as a combination with the

basionym *Caesalpinia brasiliense* Sw. (not L.) (Obs. Bot. 166. 1791) but should be considered a new name credited to Urban. Fawcett & Rendle (Fl. Jam. 4: 90. 1920) referred to a Browne specimen named by Linnaeus in the Linnean herbarium; however, either the Sloane reference (Voy. Is. Nat. Hist. II, 184. t. 231, figs. 3, 4) or the supporting specimen (if located) is more appropriate for typification.

Dalbergia ecastophyllum (L.) Taub. (2: t. 24)

Arbor, Populi nigrae foliis; fructu reni-formi mono-spermo.

Hedysarum ecastophyllum L. Syst. Nat. ed. 10. 1169. 1759. Ewan (1974, p. 95) identified this illustration as *Ecastophyllum brownei* Pers., which is distinguished on the basis of several characters that cannot be determined from Catesby's description or illustration. No supporting specimen has been located, and the problem is unresolved.

Erythrina herbacea L. (2: t. 49)

Coraliodendron humile, spica florum longissima coccinea, radice crassissimo.

Linnaeus (Sp. Pl. 706. 1753) cited Catesby (t. 49), Royen, Dillenius (t. 90), and Hortus Cliffort., with references to Carolina and "Missipi." Krukoff (Brittonia 3: 284. 1939) cited Catesby and stated the type location to be Carolina. He noted that the specimens in the Linnean herbarium appeared in 1767 and therefore cannot be the type. "The description, the plates cited by Linnaeus and the fact that only one species of *Erythrina* is found in Carolina provide sufficient evidence for interpretation of the species" (Krukoff, loc. cit.).

Galactia rudolphioides (Griseb.) Benth. & Hooker (2: t. 28, below)

An Phaseolus minor lactescens flore purpureo.

Dioclea rudolphioides Griseb. Mem. Am. Acad. II, 8: 178. 1860. The type is Wright 1181 from Cuba.

Gleditsia aquatica Marsh. (1: t. 43)

Acacia Abruae folijs, triacanthos, capsulâ ovali unicum semen claudente. Acacia.

Gleditsia triacanthos var. β , L. Sp. Pl. 1057. 1753. Linnaeus cited only Catesby. Marshall (Arbust. Am. 54. 1785) did not cite Catesby in the original description. (H.S. 212, f. 61 (upper).)

Haematoxylon campechianum L. (2: t. 66)

Lignum campechianum; species quaedam Brasil. Logwood.

Linnaeus (Sp. Pl. 384. 1753) cited Catesby, Hortus Cliffort., and Sloane. The type is LINN 538.1. (H.S. 232, f. 81, f. 90.)

Lysiloma latisiliquum (L.) Benth. (2: t. 42, left)

Acacia, Buxi foliis rotundioribus, floribus albis, siliqua lata compressa.

The discussions of Gillis and Stearn (Taxon 23: 185–191. 1974), De Wit (Taxon 24: 349–352. 1975), and Polhill and Stearn (Taxon 25: 323. 1976) are pertinent, although Linnaeus did not cite Catesby.

Pithecellobium bahamense Northrop (2: t. 97)

Acacia foliis amplioribus; siliquis cincinnatis.

Linnaeus described *Mimosa circinalis* L. (Sp. Pl. 517. 1753) and cited only Plumier (Spec. 17) for a plant from Hispaniola. Later (Sp. Pl. ed. 2. 1500.

1763), he added references to Catesby and Browne. This taxon as *Pithecellobium circinalis* (L.) Benthham is considered endemic to Hispaniola. Britton and Millspaugh (1920, p. 156) referred Catesby's illustration to *Pithecolobium mucronatum* Britton ex Coker, but this species has been considered a synonym of *Pithecellobium bahamense* Northrop in the Corrells' *Flora of the Bahama Archipelago* (1982).

Robinia hispida L. (2(App.): t. 20)

Pseudo Acacia hispida floribus roseis.

Linnaeus (Mant. Pl. 101. 1767) cited Catesby, Jacquin, and Miller.

LOGANIACEAE

Gelsemium sempervirens (L.) Aiton (1: t. 53)

Gelseminum sive Jasminum luteum ordoratum Virginianum scandens, semper virens.

Bignonia sempervirens L. Sp. Pl. 623. 1753. Linnaeus cited Catesby, Ray, Royen, and Plukenet.

Spigelia marilandica (L.) L. (corrected reference) (2: t. 78)

Gentiana forte? quae Periclymeni Virginiani flore coccineo, Planta Marilandica spicata erecta, foliis conjugatis. Indian Pink.

Lonicera marilandica L. (Syst. Nat. 12: 166. 1767). No specimens or references were cited. In the same volume (p. 734), Linnaeus transferred the taxon to *Spigelia*, a combination generally overlooked in current floras. There are no specimens in the Linnean herbarium, and a neotype should be designated. (H.S. 212, f. 33 (middle).)

LORANTHACEAE

Dendropemon purpureum (L.) Krug & Urban* (2: t. 95, below)

Viscum foliis latioribus; baccis purpureis pediculis incidentibus.

Viscum purpureum L. Sp. Pl. 1023. 1753. Linnaeus cited only Catesby. No supporting specimen has been located.

Phoradendron rubrum (L.) Griseb.* (2: t. 81, below)

Viscum foliis longioribus baccis rubris.

Viscum rubrum L. Sp. Pl. 1023. 1753. Linnaeus cited only Catesby, and Dandy (1958, p. 112) stated that the plate is the type. (H.S. 232, f. 2 (lower right), f. 8 (upper left specimen marked lectotype), f. 16 (upper left).)

MAGNOLIACEAE

Liriodendron tulipifera L. (1: t. 48)

Arbor Tulipifera Virginiana tripartito aceris folio, media lacinia velut abscissa.

Linnaeus (Sp. Pl. 535. 1753) cited Catesby, Hortus Cliffort., and others. (H.S. 212, f. 80.)

Magnolia acuminata (L.) L.* (2(App.): t. 15)

Magnolia flore albo, folio majore acuminato haud albicante.

Magnolia virginiana var. ϵ *acuminata* Sp. Pl. 536. 1753. Catesby and Gronovius are cited.

Magnolia acuminata (L.) L. Syst. Nat. ed. 10. 2: 1082. 1759. Linnaeus cited Catesby and Kalm. Dandy (1958, p. 112) stated that the plate is the type of *Magnolia acuminata* (L.) L.

***Magnolia grandiflora* L. (2: t. 61)**

Magnolia altissima, flore ingenti candido. Laurel Tree of Carolina.

Linnaeus (Syst. Nat. ed. 10. 1082. 1759) cited Catesby, Trew, and others.

***Magnolia tripetala* (L.) L.* (2: t. 80)**

Magnolia, amplissimo flore albo, fructu coccineo. Umbrella Tree.

Magnolia virginiana var. *tripetala* L. Sp. Pl. 536. 1753. Linnaeus cited only Catesby.

Magnolia tripetala (L.) L. Syst. Nat. ed. 10. 2: 1082. 1759. Linnaeus cited only Catesby, and Dandy (1958, p. 112) stated that the plate is the type.

Ewan (1974, p. 98) referred this illustration to *Magnolia macrophylla* Michx., a species with a very different leaf shape.

***Magnolia virginiana* L. (1: t. 39)**

Magnolia Lauri folio, subtus albicante. Sweet flowering Bay.

Magnolia virginiana L. var. *glauc*a L. Sp. Pl. 535. 1753. Linnaeus cited Catesby, Dillenius, and Plukenet.

Magnolia glauca (L.) L. Syst. Nat. ed. 10. 2: 1082. 1759. Here Linnaeus cited Trew, Ehret, Catesby, Dillenius, and Plukenet. Dandy (1958, p. 112) stated that the plate is the type of *Magnolia glauca* (L.) L.*

MALVACEAE

***Hibiscus tiliaceus* L. (2: t. 90)**

Ketmia, amplissimo Tiliae folio, subtus argenteo, Flore magno luteo. Maho-Tree.

Linnaeus (Sp. Pl. 694. 1753) did not cite Catesby. Ewan (1974, p. 99) incorrectly referred this illustration to *Thespesia populnea* (L.) Solander. Fryxell (pers. comm.) recognizes the native western hemisphere plant as *Hibiscus pernambucensis* Arruda. The supporting Catesby specimen, H.S. 232, f. 120 (lower), agrees with the description of this species.

***Phymosia abutiloides* (L.) Ham. (1: t. 77)**

Ketmia frutescens glauca, Aceris majoris folio longiore, serrato, flore carneo.

Malva abutiloides L. Sp. Pl. ed. 2. 971. 1763. Linnaeus cited only Dillenius, "elth. 1, t. 1, f. 1." (H.S. 232, f. 120 (upper right); BM-Dale.)

MELIACEAE

***Swietenia mahagoni* (L.) Jacq. (2: t. 81, above)**

Arbor foliis pinnatis, nullo impari Alam claudente, nervo ad latus unum excurrente, fructu anguloso magno, semine alato instar Pinûs. Mahogany Tree.

Cedrela Mahag. L. Syst. Nat. ed. 10. 2: 940. 1759. Linnaeus cited only Catesby, and Dandy (1958, p. 112) stated that the plate is the type of *Cedrela mahagoni* L. Pennington (in Pennington & Styles, Fl. Neotrop. 28: 401. 1981) agrees.

MENISPERMACEAE

Cocculus carolinus (L.) DC. (1: t. 51)

Smilax (forte) lenis, folio anguloso hederaceo.

Menispermum carolinum L. Sp. Pl. 340. 1753. Linnaeus cited no references for this taxon, and no plant material on which it was based is still in existence. However, under *Cissampelos smilacina* L. (Sp. Pl. 1032. 1753) Linnaeus cited only Catesby, so the illustration is the type of that specific name. The latter taxon has been of uncertain placement. Asa Gray (Synopt. Fl. N. Am. 1: 64–66. 1895) cited Catesby's plate and referred *C. smilacina* L. to *Cocculus carolinus* (L.) DC. However, according to both the entry in *Index Kewensis* and Diels (*in Pflanzenr.* IV. 94: 257. 1910), *C. smilacina* is *Menispermum canadense* L. Ewan (1974, p. 93) stated, "Though *Cocculus carolinus* (L.) DC. occurs in the region visited by Catesby there is little doubt this is *Menispermum* [*canadense* L.]." However, Catesby illustrated and described red fruits (characteristic of *Cocculus*), while *Menispermum canadense* has black fruits. Among possible supporting specimens, H.S. 232, f. 41 and f. 104 are *Cocculus*, but H.S. 212, f. 21 is a *Menispermum*. It would appear that either a neotype should be designated for *Cocculus* (*Menispermum*) *carolinus* or, less desirably, that the name of this well-known species should be changed to utilize the basionym *Cissampelos smilacina*, which is typified by Catesby's plate.

MONOTROPACEAE

Monotropa uniflora L. (1: t. 36)

Orobanche Virginiana flore pentapetalo cernuo. Broom-rape.

Linnaeus (Sp. Pl. 387. 1753) cited Catesby and Gronovius.

MORACEAE

Ficus citrifolia Miller (2(App.): t. 18)

Ficus citrii folio, fructu parvo purpureo.

Ficus indica L. var. β ., L. Sp. Pl. 1060. 1753. Linnaeus cited Catesby, Hortus Cliffort., Sloane, and others. According to De Wolf (*in* Woodson, Fl. Panama, IV. 2: 160. 1960), the taxon is typified by "a specimen in Herb. Banks." Ewan (1974, p. 100) identified this illustration as *Ficus brevifolia* Nutt., a name now considered to be a synonym.

MYRICACEAE

Myrica cerifera L. (1: t. 69)

Myrtus, Brabanticae similis, Carolinensis, baccata, fructu racemoso sessili monopyreno. Narrow-leaved Candle-berry Myrtle.

Linnaeus (Sp. Pl. 1024. 1753) cited Catesby, Hortus Cliffort., Hortus Upsal., Gronovius, and others. (BM-Dale.)

Myrica pensylvanica Loisel (1: t. 13)

Myrtus Brabanticoe similis Caroliniensis humilior; foliis latioribus & magis Serratis. Broad-leaved Candle-berry Myrtle.

Linnaeus (Sp. Pl. 1024. 1753) cited only Catesby under *M. cerifera* L. var. β . Loisel (*in* Duhamel, *Traité Arbres Arbustes*, ed. augm. 2: 190. t. 55. 1804) cited Catesby but also published a plate. The type is then either Catesby's or Loisel's illustration. (H.S. 232, f. 50.)

NYSSACEAE

Nyssa aquatica L.* (1: t. 60)

Arbor in aqua nascens, folijs latis acuminatis & dentatis, fructu Eleagni majore. Water-Tupelo.

Linnaeus (Sp. Pl. 1058. 1753) cited Catesby, *tt.* 41 and 60, as well as Hortus Cliffort., Gronovius, and Plukenet. Eyde (Taxon 13: 131. 1964) discussed the complicated problem. We accept his implication that Catesby's t. 60 is the best option for the type. Supporting specimens are H.S. 212, f. 67 (left), and 232, f. 52 (right). Ewan (1974, p. 94) has identified this illustration as *Nyssa ogeche* Bartram, a very different plant.

Nyssa sylvatica Marsh. (1: t. 41)

Arbor in aqua nascens, folijs latis acuminatis & non dentatis fructu Eleagni minore. Tupelo Tree.

As indicated above, Linnaeus (Sp. Pl. 1058. 1753) cited this plate under *Nyssa aquatica*. Eyde (Taxon 13: 130, 131. 1964) stated, "in the absence of a specimen, Marshall's description is the type." However, Catesby's t. 41 must be the lectotype—not Marshall's "description." Ewan (1974, p. 93) identified this illustration as *Nyssa aquatica* L.

OLEACEAE

Chionanthus virginicus L. (1: t. 68)

Amelanchior Virginiana, Lauro cerasifolio. Fringe Tree.

Linnaeus (Sp. Pl. 8. 1753) cited Catesby and Hortus Cliffort.

Fraxinus americana L. (1: t. 80)

Fraxinus Carolinensis, folijs angustioribus utrinque acuminatis, pendulis.

Linnaeus (Sp. Pl. 1057. 1753) cited Catesby, Gronovius, and Ray. A specimen collected by Gronovius is in the Linnean herbarium. (H.S. 212, f. 11 (lower).)

Osmanthus americanus (L.) Gray (1: t. 61)

Ligustrum Lauri folio, fructu violaceo. Purple-berried Bay.

Olea americana L. Mant. Pl. 24. 1767. Linnaeus cited only Catesby, but he indicated a specimen from "D. Guarden." Peter Green (Notes Roy. Bot. Gard. Edinburgh 22: 463. 1958) has designated an unmarked sheet in the Linnean herbarium from Dr. Garden as the type specimen. The combination in *Osmanthus* has been incorrectly attributed to Bentham and Hooker (Gen. Pl. 2: 677. 1876), who only implied it by listing the species under *Osmanthus*. (H.S. 212, f. 22 (upper).)

PASSIFLORACEAE

Passiflora cuprea L.* (2: t. 93, below)

Grandilla, foliis Sarsaparillae trinerviis; flore purpureo; fructu Olivaeformi caeruleo.

Linnaeus (Sp. Pl. 955. 1753) cited Amoen. Acad. (1: 218. fig. 2. 1749), Dillenius, Martens, and Catesby. Theoretically, any of the plates is available for typification. Ewan (1974, p. 99) noted that Catesby's plate is "cited in *Sp. pl.* where three additional references are cited but the 'Habitat' is given only as 'Providentia, Bahama.' and thus fixes the type in the present-day type concept for the Linnaean name." (H.S. 232, f. 22 (lower center).)

Passiflora suberosa L. (2: t. 51, below)

Flos Passionis minimus, trilobatus flore sub-caeruleo.

Linnaeus (Sp. Pl. 958. 1753) did not cite Catesby. Ewan (1974, p. 97) identified this illustration as *Passiflora pallida* L. and cited Killip (Publ. Field Mus. Bot. 19: 88–97. 1938), although Killip in that publication accepted *Passiflora suberosa* L. and listed *P. pallida* L. as a synonym. Killip (p. 97) rejected "rules of page priority [that] would require the use of the name *P. pallida*" and noted but did not cite as a type the specimen in the Linnean herbarium that Linnaeus had in 1753. (BM-Dale.)

PLATANACEAE

Platanus occidentalis L. (1: t. 56)

Platanus Occidentalis. Western Plane Tree.

Linnaeus (Sp. Pl. 999. 1753) cited Catesby and Hortus Cliffort. (H.S. 212, f. 68 (upper).)

POLYGONACEAE

Coccoloba diversifolia Jacq. (2: t. 94)

Cerasus latiore folio; fructu racemoso purpureo majore. Pigeon-Plum.

In the second edition of *Species Plantarum* (1: 677. 1762), Linnaeus cited Catesby's t. 94, Gronovius, and Royen in the protologue of *Prunus virginiana* (q.v.), but not Catesby's 1: t. 28 or Plukenet as he had done in the first edition.

Coccoloba uvifera (L.) L. (2: t. 96)

Prunus maritima racemosa, folio rotundo glabro; fructu minore purpureo. Mangrove Grape Tree.

Polygonum uvifera L. Sp. Pl. 365. 1753. Linnaeus cited Catesby and Hortus Cliffort. (H.S. 232, f. 8 (lower right).)

PRIMULACEAE

Dodecatheon meadia L.* (2(App.): t. 1)

Meadia.

Linnaeus (Sp. Pl. 144. 1753) cited only Catesby and Plukenet (Alm. Bot. 62. t. 79. fig. 6. 1696). Dandy (1958, p. 112) stated that the plate is the type, thus designating a lectotype by choosing Catesby and rejecting Plukenet.

RHAMNACEAE

Colubrina elliptica (Sw.) Briz. & Stern (1: t. 10)

Frutex Lauri folio pendulo, fructu tricocco, semine nigro splendente. Red-Wood.

Ewan (1974, p. 92) identified this illustration as *Colubrina reclinata* (L'Hér.) Brongn., which is now regarded as a synonym of *C. elliptica*.

Reynosia septentrionalis Urban (1: t. 75)

Prunus Buxi folio cordato, fructu nigro rotundo. Bullet-Bush.

Sargent (Silva N. Am. 2: 21. t. 56. 1891) noted that Catesby's plate was the earliest account of *Reynosia latifolia* Griseb. Urban (Symb. Antill. 1: 356. 1899) separated the Bahamian and the Cuban plants, although both species are recognized in the current flora of Cuba.

RHIZOPHORACEAE

Rhizophora mangle L. (2: t. 63)

Candela Americana, foliis Laurinis, flore tetrapetalo luteo, fructu angustiore. Mangrove Tree.

Linnaeus (Sp. Pl. 443. 1753) did not cite Catesby.

ROSACEAE

Prunus virginiana L. (1: t. 28)

Cerasi similis arbuscula Mariana. Poedi folio, flore albo parvo racemoso. Cluster'd black Cherry.

Linnaeus (Sp. Pl. 473. 1753) cited Catesby's t. 28, Gronovius, Royen, and "Pluk. mant. 43. t. 339." He later (Sp. Pl. ed. 2. 1: 677. 1762) changed the references, adding Catesby 2: t. 94 (*Coccoloba diversifolia* Jacq.) and eliminating mention of t. 28. (OXF-S.)

RUBIACEAE

Casasia clusiifolia (Jacq.) Urban (1: t. 59)

Arbor Jasmini, floribus albis, folijs Cenchranmideoe, fructu ovali, seminibus parvis nigris mucilagine involutis. Seven Years Apple.

Catesbaea spinosa L.* (2: t. 100)

Frutex Spinosus Buxi foliis, plurimis simul nascentibus; flore tetrapetaloide, pendulo, sordide flavo, tubo longissimo; fructu ovali croceo, semina parva continente.

Linnaeus (Sp. Pl. 109. 1753) cited only Catesby. Dandy (1958, p. 112) stated that the type of *C. spinosa* L., H.S. 232, f. 21 (upper left and lower right), is thus the type of the specific and generic names. The generic name is correctly attributed to Linnaeus (Farr *et al.*, Index Nom. Gen. 1: 303. 1979), although Catesby stated "Catesbaea†. *Lycium* Catesbeii, Authore D. Gronovio" and, in a footnote, "It is not without Reluctancy, that I here exhibit a Plant with my own Name annexed to it; but the Regard and Obligations I owe to my learned Friend Dr. J. F. Gronovius of Leyden, who

was pleased some Years since to honor me, tho' undeservedly, with the Title of this Genus, obliges me not to suppress it." The binomial "*Lycium Catesbeii*" has not been located in Gronovius's publications. In addition to the above-mentioned specimens in the Sloane herbarium, there is a better one in the general herbarium at BM from Gronovius.

Mitchella repens L. (1: t. 20, below)

Myrti subrotundis folijs, floribus albis gemellis ex provincia Floridana. Syringa Baccifera.

Linnaeus (Sp. Pl. 111. 1753) cited Catesby, Gronovius, and others.

RUTACEAE

Amyris elemifera L. (2: t. 33, below)

Frutex trifolius resinosus; floribus tetra-petalis albis racemosis.

Linnaeus (Syst. Nat. ed. 10. 1000. 1759) cited Catesby and Hortus Cliffort. Fawcett and Rendle (Fl. Jamaica 4: 191. 1920) suggested that a specimen in the Linnean herbarium collected by Browne was the type.

Ptelea trifoliata L. (2: t. 83)

Frutex Virginianus trifolius, Ulmi Samaritis; Banisteri.

Linnaeus (Sp. Pl. 118. 1753) did not cite Catesby. (H.S. 212, f. 66 (upper left); 232, f. 53.)

Zanthoxylum clava-herculis L. (1: t. 26)

Zanthoxylum spinosum, Lentisci, longioribus folijs Euonimi fructu capsulari ea Insula Jamaicensi. Pellitory, or Tooth-ach Tree.

Linnaeus (Sp. Pl. 270. 1753) cited Catesby and Hortus Cliffort. in the protologue and gave the distribution as Jamaica, Carolina, and Virginia. We suspect that Catesby's reference to Jamaica is in error. The only associated specimen (BM-Dale) is *Z. clava-herculis*. *Zanthoxylum clava-herculis* Sw. (Obs. Bot. 375. 1791), not L. (1753), from Jamaica has been referred to the synonymy of *Z. martinicense* DC.

SALICACEAE

Populus heterophylla L. (1: t. 34)

Populus nigra folio maximo gemmis Balsamum odoratissimum fundentibus. Black Poplar of Carolina.

For *Populus balsamifera* L. (Sp. Pl. 1034. 1753) Linnaeus cited Catesby and Hortus Cliffort. Rouleau (Rhodora 48: 103–110. 1946) concluded that Catesby illustrated *Populus heterophylla* but described a mixture of *P. heterophylla* and *P. deltoides*. Rouleau cited a specimen in the British Museum, which may have been H.S. 212, f. 11 (upper) or 232, f. 52 (left, 1 leaf).

SAPOTACEAE

Manilkara bahamensis Lam & Meeuse (2: t. 87, above)

Anona foliis Laurinis, in summitate incisis; fructu compresso scabro fusco, in medio acumine longo. Sappadillo Tree.

For *Sloanea emarginata* L. (Sp. Pl. 512. 1753) Linnaeus cited only Catesby

but incorrectly attributed the plant to Carolina. Dandy (1958, p. 112) stated that the plate was the type of *Sloanea emarginata* L.*, with the typotype H.S. 232, f. 15.

Achras bahamensis Baker (in J. D. Hooker, Ic. Pl. 18. t. 1795. 1888) was typified by Eggers 3837, from Fortune Island, and Catesby's plate was cited, but Baker was unaware of Linnaeus's description of the plant in the genus *Sloanea*. *Manilkara bahamensis* Lam & Meeuse (Blumea 4: 354. 1941) is therefore to be treated as a new name and not a new combination (Art. 72, Note 1). The Linnaean specific epithet cannot be transferred as *Manilkara emarginata* (L.) Britton & Wilson (Sci. Survey Porto Rico Virgin Is. 6: 366. 1926) because it would be a later homonym of *M. emarginata* Lam (Bull. Jard. Bot. Buitenzorg, III. 7: 241. 1925), a plant from the Hawaiian Islands.

Mastichodendron foetidissimum (Jacq.) Lam (2: t. 75)

Cornus, foliis Laurinis, fructu majore luteo. Mastic Tree.

Ewan (1974, p. 98) suggested *Sideroxylon foetidissimum* Jacq. for this illustration. That name serves as the basionym.

SARRACENIACEAE

Sarracenia × **catesbaei** (Ell.) Bell* (2: t. 69)

Sarracena, foliis longioribus & angustioribus; Bucanephyllon elatius Virginianum, &c.

Catesby, Hortus Clifford., and Gronovius were cited under *Sarracenia flava* L. (Sp. Pl. 510. 1753). Elliot (Sketch Bot. S.-Carolina Georgia 2: 11. 1824) cited Catesby. Bell (Jour. Elisha Mitchell Sci. Soc. 68: 60. 1952) discussed the hybrid status suggested for Catesby's plant. (H.S. 212, f. 20, f. 21, f. 45.)

Sarracenia purpurea L. (2: t. 70)

Sarracena, foliis brevioribus latioribus. Sarracena Canadensis, foliis cavis & auritis.

Linnaeus (Sp. Pl. 510. 1753) cited Catesby, Hortus Clifford., and Gronovius. (BM-Dale.)

SAXIFRAGACEAE

Philadelphus inodorus L.* (2: t. 84, above)

Philadelphus flore albo majore inodoro.

Linnaeus (Sp. Pl. 470. 1753) cited only Catesby. Dandy (1958, p. 112) stated that the plate is the type, with the typotype H.S. 212, f. 16 (upper right). (OXF-DB.)

STERCULIACEAE

Theobroma cacao L.* (2(App.): t. 6)

Cacao Arbor. Cacao Tree.

Linnaeus (Sp. Pl. 782. 1753) cited Catesby, Hortus Clifford., and others. Cuatrecasas (Contr. U. S. Natl. Herb. 35: 496. 1964) selected H.S. 5, f. 59 as the lectotype.

STYRACACEAE

Halesia tetraptera Ellis (1: t. 64)

Frutex, Padi folijs non serratis, floribus monopetalis albis, campani-formibus, fructu crasso tetragono.

Halesia carolina L. (Syst. Nat. ed. 10. 1044. 1759). Linnaeus cited Catesby and material collected by Ellis. Reveal and Seldin (Taxon 25: 123–140. 1976), discussing in detail the identity of Linnaeus's species, concluded (p. 127) that it was different than the one illustrated by Catesby, and that Linnaeus had based his description of *H. carolina* "only on the material sent to him by Ellis. The Catesby illustration is somewhat difficult to associate with a given species only because it is not entirely accurate. However, it appears to represent the Coastal Plain phase of *Halesia carolina*, sensu authors, which is now infrequently encountered near Charleston. Little can be gleaned from Catesby's rather long description."

SYMPLOCACEAE

Symplocos tinctoria (L.) L'Hér. (1: t. 54)

Arbor lauri folio, floribus ex foliorum, alis pentapetalis, pluribus staminibus donatis.

Hopea tinctoria L. (Mant. Pl. 105. 1767; Syst. Nat. ed. 12. 509. 1767). The two references are considered to have been published simultaneously. Linnaeus cited Catesby and appears to have credited the genus to Garden but called the illustrated plant "mala." A specimen in the Linnean herbarium (942.1) may be from Dr. Garden and is in fruit. A specimen collected by Catesby and in the Gronovius herbarium (BM) is in flower. Although Linnaeus described both flowers and fruit, we designate the specimen in his herbarium as the lectotype.

THEACEAE

Gordonia lasianthus (L.) Ellis (1: t. 44)

Alcea Floridana quinque capsularis Laurinis folijs, leviter crenatis, seminibus coniferarum instar alatis. Loblolly Bay.

In the protologue of *Hypericum lasianthus* L. (Sp. Pl. 783. 1753), Linnaeus cited Catesby, Hortus Cliffort., and others. Later, Linnaeus (Mant. Pl. 2: 570. 1771) used *Gordonia lasianthus* and cited the second edition of *Species Plantarum* (1763, p. 1101). The generic name is attributed to Ellis (Philos. Trans. 60: 520. 1771) and is conserved (#5148). (H.S. 212, f. 13 (lower); 232, f. 50 (right); BM-Dale; OXF-S.)

Stewartia malacodendron L. (2(App.): t. 13)

Steuartia.

Linnaeus (Sp. Pl. 698. 1753) cited Catesby and "Act. Ups. 1741, 79, t. 2."

THEOPHRASTACEAE

Jacquinia keyensis Mez (1: t. 98)

Frutex Buxi foliis oblongis, baccis pallide viridibus apice donatis. Soap-Wood.

Catesby's illustration was cited by Britton and Millspaugh (1920, p. 317).



FIGURE 1. Catesby's illustration of "Frutex aquaticus, floribus luteis, fructu rotundo quinque-capsulari" (Vol. 2, *t.* 30). Unidentified.

VERBENACEAE

Avicennia germinans (L.) L. (1: t. 85)

Frutex Bahamensis foliis oblongis succulentis, fructu subrotundo unicum nucleum continente.

Bontia germinans L. (Syst. Nat. ed. 10. 1122. 1759; Sp. Pl. ed. 2. 891. 1763). LECTOTYPE: *Browne* (LINN 813.2), according to Stearn (Kew Bull. 1958: 34. 1958). Ewan (1974, p. 95) identified this illustration as *Avicennia nitida* Jacq., a synonymous name.

Callicarpa americana L. (2: t. 47)

Frutex baccifer, verticillatus; folijs scabris latis dentatis, & conjugatis; bacis purpurijs dense congestis.

Linnaeus (Sp. Pl. 111. 1753) cited Catesby and Gronovius. A specimen collected by Gronovius is LINN 136.1.

VITACEAE

Cissus tuberculata Jacq. (2: t. 48)

Frutex Rubo similis, non spinosus, capreolatus; fructu racemoso caeruleo Mori-formi.

UNPLACED ILLUSTRATIONS

2: t. 30, above. *Frutex aquaticus, floribus luteis, fructu rotundo quinque-capulari.*

Edwards and Forster were unable to identify this illustration (see FIGURE 1). Ewan (1974, p. 96) suggested with reservations *Samolus ebracteatus* HBK. (Primulaceae), stating that, "The inflorescence as drawn bears a striking resemblance."

Catesby (2: 30) described this plant as follows:

These Plants grow usually about twelve Feet high, arising with innumerable small Stems, alternately bent, from which shoots forth smaller Twigs, set with small pointed smooth Leaves; the Flowers grow on the Tops of the Branches before they open, being inclosed in small brown pointed *Periantheums*, set on short Foot-stalks: are hexapetalous, of a deep yellow Colour, with long *Apices* of the same Colour: They grow in shallow, fresh Water Ponds, in the Woods of *Virginia* and *Carolina*, and in the beginning of *February* adorn the Woods, when few other Plants appear in Blossom: The Flowers are succeeded by small round Capsula's, which in *March* and *April* divide into four Parts and disclose their Seeds, which are very small, and being dispersed by the Wind into watery Places, spring up very thick and blossom in a short Time.

As drawn, the flowers appear to resemble an *Hypericum*, and the habit perhaps *Hypericum densiflorum* Pursh. However, the alternate leaves, the flowering time, and the description of the fruit negate this suggestion. No supporting specimens were located.

2: t. 52, plant. *Frutex Lauri longiore folio.*

Ewan (1974, p. 97) suggested *Decumaria barbara* L. for this illustration (see FIGURE 2), recognizing aberrancies in the habit, the leaves, and the shape of the flower.

Catesby (2: 52) described the plant as follows:

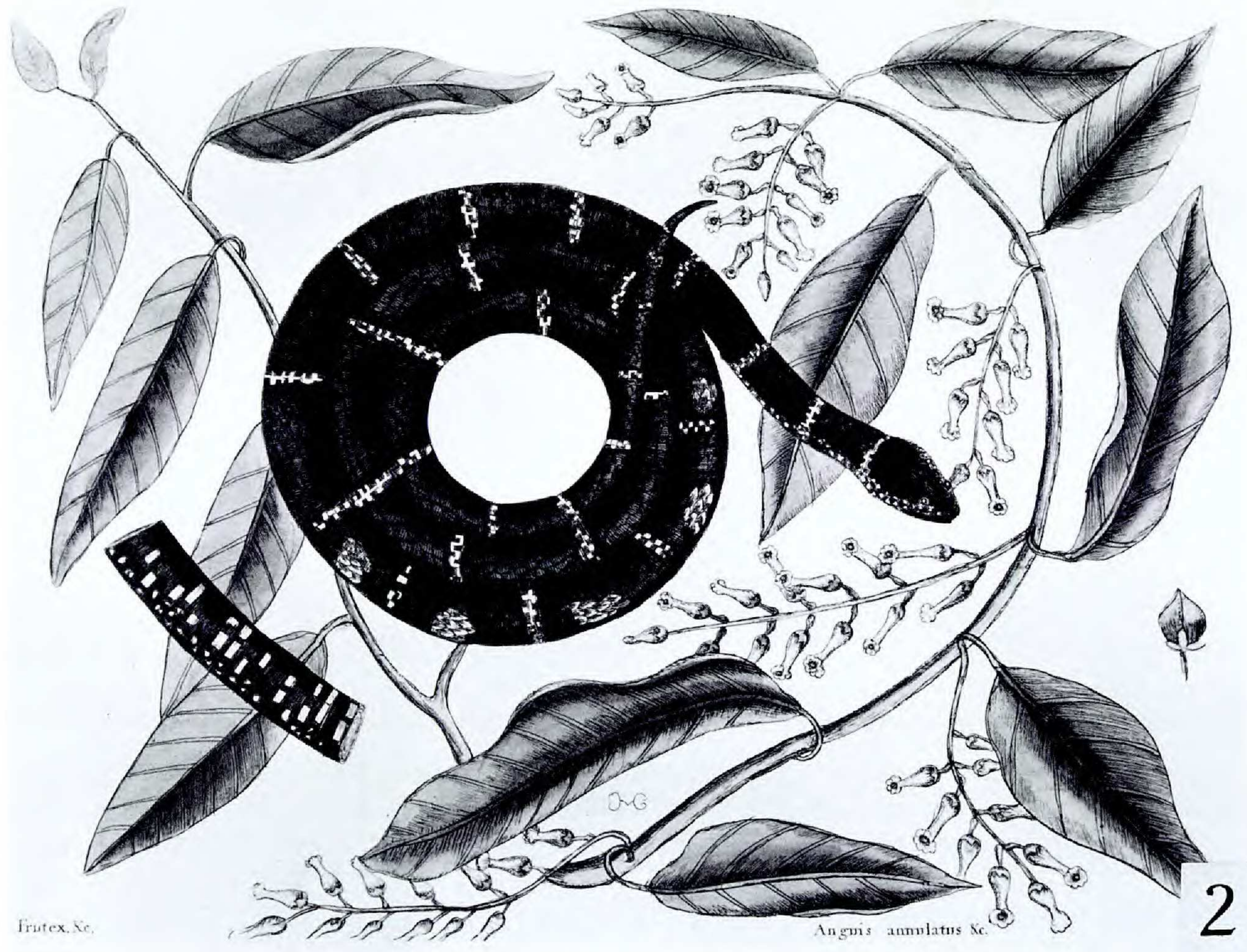


FIGURE 2. Catesby's illustration of "Frutex Lauri longiore folio" (Vol. 2, *t.* 52). Unidentified.

This Shrub is a Native of *Virginia*, and grows in wet Swamps and standing Waters; it rises from the Ground, with many Stems to the Height of eight or ten Feet, of a reddish Colour. The Leaves are placed alternately an Inch from one another, and are in Shape like those of a Bay, stiff and shining; at the Pedicles of the Leaves grow the Flowers, which are tubulous, of a pale red Colour, and set on Stalks two and three Inches long; these Flowers are succeeded by small conic Seed-Vessels about the Size of large Peas, which when ripe, open in two Parts and display many small black Seeds. It retains the Leaves all the Winter.

If the bilobed capsule, as drawn, is associated with what appears to be a tubular corolla, the plant may be in the Apocynaceae. We know of no plant that agrees with the characters given in the description. We doubt that it is *Decumaria*. Again, no supporting specimens were located.

LITERATURE CITED

- ADANSON, M. 1763[–1764]. *Familles des plantes*. Vols. 1, 2. Paris.
- ALLEN, E. G. 1937. New light on Mark Catesby. *Auk* **54**: 349–363.
- BOSSU, J.-B. 1771. *Travels through that part of North America formerly called Louisiana*. (Translated by J. R. FORSTER.) Vols. 1, 2. London.
- BRITTON, N. L., & C. F. MILLSPAUGH. 1920. *The Bahama flora*. New Era Printing Co., Lancaster, Pennsylvania.
- CATESBY, M. [1730–]1731–1743[–1747]. *The natural history of Carolina, Florida and the Bahama Islands*. Vols. 1, 2. London.
- CLOKIE, H. M. 1964. *An account of the herbaria of the Department of Botany in the University of Oxford*. Oxford Univ. Press, London.
- CORRELL, D. S., & H. B. CORRELL. 1982. *Flora of the Bahama Archipelago*. J. Cramer, Vaduz, Germany.
- DANDY, J. E. 1958. *The Sloane Herbarium*. British Museum, London.
- EWAN, J. 1974. Notes. Pp. 89–100 *in* *The natural history of Carolina, Florida and the Bahama Islands by the late Mark Catesby*. Beehive Press, Savannah, Georgia.
- GRONOVIIUS, J. F. 1739, 1743. *Flora virginica*. Leiden.
- . 1762. *Flora virginica*. ed 2. Leiden.
- LINNAEUS, C. 1753. *Species plantarum*. Vols. 1, 2. Stockholm.
- . 1756. *Centuria II. Plantarum*. Uppsala.
- . 1759. *Systema naturae*. ed. 10. Stockholm.
- . 1762, 1763. *Species plantarum*. ed. 2. Vols. 1, 2. Stockholm.
- . 1767. *Mantissa plantarum*. Stockholm.
- . 1771. *Mantissa plantarum altera*. Stockholm.
- PLUMIER, C. 1755–1760. *Plantarum americanarum*. (J. BURMANN, ed.) Amsterdam/Leiden.
- REVEAL, J. L. 1983. Significance of pre-1753 botanical explorations in temperate North America on Linnaeus' first edition of *Species Plantarum*. *Phytologia* **53**: 1–96.
- SLOANE, H. 1707, 1725. *A voyage to the islands Madera, Barbados, Nieves, S. Christophers and Jamaica*. Vols. 1, 2. London.
- STAFLEU, F. A. 1967. Taxonomic literature. *Reg. Veg.* **52**: 1–556.
- STEARNS, W. T. 1958. Publication of Catesby's *Natural History of Carolina*. *Jour. Soc. Bibliogr. Nat. Hist.* **3**: 328.
- STEVENSON, A. 1961. Catalogue of botanical books in the collection of Rachel McMaster Miller Hunt. Vol. 2, part 2. Hunt Botanical Library, Pittsburgh, Pennsylvania.

APPENDIX. Determinations of Catesby's Illustrations of Plants

VOLUME 1

9. *Castanea pumila* (L.) Miller—Fagaceae
10. *Colubrina elliptica* (Sw.) Briz. & Stern—Rhamnaceae
11. *Taxodium distichum* (L.) Rich.—Taxodiaceae
13. *Myrica pensylvanica* Loisel—Myricaceae
14. *Oryza sativa* L.—Gramineae
15. *Smilax laurifolia* L.—Smilacaceae
16. *Quercus phellos* L.—Fagaceae
17. *Quercus virginiana* Miller—Fagaceae
18. *Quercus prinus* L.—Fagaceae
19. *Quercus marilandica* Muenchh.*—Fagaceae
- 20, above. *Quercus nigra* L.—Fagaceae
- 20, below. *Mitchella repens* L.—Rubiaceae
- 21, left. *Quercus alba* L.—Fagaceae
- 21, right. *Quercus rubra* L.—Fagaceae
22. *Quercus incana* Bartram (*Quercus cinerea* Michx.*)—Fagaceae
23. *Quercus laevis* Walter (*Quercus catesbaei* Michx.*)—Fagaceae
24. *Podophyllum peltatum* L.—Berberidaceae
25. *Chrysobalanus icaco* L.—Chrysobalanaceae
26. *Zanthoxylum clava-herculis* L.—Rutaceae
27. *Cornus florida* L. forma *rubra* (Weston) Schelle—Cornaceae
28. *Prunus virginiana* L.—Rosaceae
29. *Aristolochia serpentaria* L.—Aristolochiaceae
30. *Bursera simaruba* (L.) Sarg.—Burseraceae
31. *Ilex cassine* L.—Aquifoliaceae
32. *Uniola paniculata* L.—Gramineae
33. *Hypoxis* sp.—Hypoxidaceae
34. *Populus heterophylla* L.—Salicaceae
35. *Ipomoea sagittata* Poiret—Convolvulaceae
36. *Monotropa uniflora* L.—Monotropaceae
37. *Tabebuia bahamensis* (Northrop) Britton—Bignoniaceae
38. *Carya alba* (L.) K. Koch—Juglandaceae; *Carya cordiformis* (Wangenh.) K. Koch—Juglandaceae (smaller fruit)
39. *Magnolia virginiana* L. (*Magnolia virginiana* var. *glauca* L.*)—Magnoliaceae
40. *Metopium toxiferum* (L.) Krug & Urban—Anacardiaceae
41. *Nyssa sylvatica* Marsh.—Nyssaceae
42. *Jacaranda caerulea* (L.) Griseb.* (*Bignonia caerulea* L.*)—Bignoniaceae
43. *Gleditsia aquatica* Marsh.—Leguminosae
44. *Gordonia lasianthus* (L.) Ellis—Theaceae
45. *Trillium catesbaei* Ell.*—Liliaceae
46. *Calycanthus floridus* L.—Calycanthaceae
47. *Smilax pumila* Walter—Smilacaceae
48. *Liriodendron tulipifera* L.—Magnoliaceae
49. *Catalpa bignonioides* Walter—Bignoniaceae
50. *Trillium maculatum* Raf.*—Liliaceae
51. *Cocculus carolinus* (L.) DC. (*Cissampelos smilacina* L.*)—Menispermaceae
52. *Smilax tamnoides* L.—Smilacaceae
53. *Gelsemium sempervirens* (L.) Aiton—Loganiaceae
54. *Symplocos tinctoria* (L.) L'Hér.—Symplocaceae
55. *Sassafras albidum* (Nutt.) Nees var. *molle* (Raf.) Fern.—Lauraceae

*Names determined to be based on Catesby's illustrations.

56. **Platanus occidentalis** L.—Platanaceae
57. **Rhododendron viscosum** (L.) Torrey var. **aemulans** Rehder—Ericaceae
58. above. **Cleistes divaricata** (L.) Ames—Orchidaceae
58. below. **Echites umbellata** Jacq.—Apocynaceae
59. **Casasia clusiifolia** (Jacq.) Urban—Rubiaceae
60. **Nyssa aquatica** L.*—Nyssaceae
61. **Osmanthus americanus** (L.) Gray—Oleaceae
62. **Acer rubrum** L.—Aceraceae
63. **Persea borbonia** (L.) Sprengel* (*Laurus borbonia* L.*)—Lauraceae
64. **Halesia tetraptera** Ellis—Styracaceae
65. **Campsis radicans** (L.) Seem.—Bignoniaceae
66. **Clethra alnifolia** L.—Clethraceae
67. **Juglans nigra** L.—Juglandaceae
68. **Chionanthus virginicus** L.—Oleaceae
69. **Myrica cerifera** L.—Myricaceae
70. **Gentiana catesbaei** Walter—Gentianaceae
71. **Oxydendrum arboreum** (L.) DC.*—Ericaceae
72. **Salmea petrobioides** Griseb.—Compositae
75. **Reynosia septentrionalis** Urban—Rhamnaceae
77. **Phymosia abutiloides** (L.) Ham.—Malvaceae
79. **Scaevola plumieri** (L.) Vahl* (*Lobelia plumierii* L.*)—Goodeniaceae
80. **Fraxinus americana** L.—Oleaceae
82. **Orontium aquaticum** L.—Araceae
83. **Peltandra virginica** (L.) Schott & Engler—Araceae
85. **Avicennia germinans** (L.) L.—Verbenaceae
86. **Laguncularia racemosa** (L.) Gaertner—Combretaceae
92. **Wedelia bahamensis** (Britton) Schulz—Compositae
93. **Borrchia arborescens** (L.) DC.—Compositae
98. **Jacquinia keyensis** Mez—Theophrastaceae

VOLUME 2

24. **Dalbergia ecastophyllum** (L.) Taub.—Leguminosae
26. **Phyllanthus epiphyllanthus** L.—Euphorbiaceae
28. above. **Ocotea coriacea** (Sw.) Britton (*Laurus catesbyana* Michx.*)—Lauraceae
28. below. **Galactia rudolphioides** (Griseb.) Benth. & Hooker—Leguminosae
30. Unidentified
32. **Picrodendron baccatum** (L.) Krug & Urban—Euphorbiaceae
33. above. **Conocarpus erectus** L.—Combretaceae
33. below. **Amyris elemifera** L.—Rutaceae
38. **Thalassia testudinum** König—Hydrocharitaceae
42. left. **Lysiloma latisiliquum** (L.) Benth.—Leguminosae
42. right. **Banara minutiflora** (A. Rich.) Sleumer—Flacourtiaceae
43. **Leucothoë racemosa** (L.) Gray—Ericaceae
44. **Acacia tortuosa** (L.) Willd.—Leguminosae
45. **Alocasia** sp. or **Xanthosoma** sp.—Araceae
46. **Croton eluteria** (L.) Sw.* (*Clutea eluteria* L.*, *Clutia cascarilla* L.*)—Euphorbiaceae
47. **Callicarpa americana** L.—Verbenaceae
48. **Cissus tuberculata** Jacq.—Vitaceae
49. **Erythrina herbacea** L.—Leguminosae
50. **Canella winterana** (L.) Gaertner—Canellaceae
51. above. **Caesalpinia bahamensis** Lam.—Leguminosae
51. below. **Passiflora suberosa** L.—Passifloraceae
52. Unidentified

53. **Urechites lutea** (L.) Britton* (*Vinca lutea* L.*, *Echites catesbaei* G. Don*)—Apocynaceae
54. **Silene virginica** L.—Caryophyllaceae
55. **Polystachya concreta** (Jacq.) Garay & Sweet—Orchidaceae
56. **Lilium superbum** L.—Liliaceae
57. **Ilex vomitoria** L. (*Cassine paragua* Miller*)—Aquifoliaceae
58. **Lilium catesbaei** Walter—Liliaceae
59. **Echinacea purpurea** (L.) Moench—Compositae
60. **Ipomoea batatas** (L.) Lam.—Convolvulaceae
61. **Magnolia grandiflora** L.—Magnoliaceae
62. **Commelina virginica** L.—Commelinaceae
63. **Rhizophora mangle** L.—Rhizophoraceae
64. **Annona glabra** L.*—Annonaceae
65. **Liquidambar styraciflua** L.—Hamamelidaceae
66. **Haematoxylon campechianum** L.—Leguminosae
67. **Annona glabra** L.—Annonaceae
68. **Epidendrum nocturnum** Jacq.—Orchidaceae
69. **Sarracenia** × **catesbaei** (Ell.) Bell*—Sarraceniaceae
70. **Sarracenia purpurea** L.—Sarraceniaceae
71. **Symplocarpus foetidus** (L.) Nutt.—Araceae
72. **Cypripedium acaule** Aiton (*Cypripedium vittatum* var. *planum* Raf.*)—Orchidaceae
73. **Cypripedium pubescens** Willd. (*Cypripedium vittatum* var. *tortile* Raf.*)—Orchidaceae
74. **Epidendrum boothianum** Lindley—Orchidaceae
75. **Mastichodendron foetidissimum** (Jacq.) Lam—Sapotaceae
76. **Diospyros virginiana** L.—Ebenaceae
77. **Catopsis berteroniana** (Schultes) Mez—Bromeliaceae
78. **Spigelia marilandica** (L.) L.—Loganiaceae
79. **Bourreria ovata** Miers—Boraginaceae
80. **Magnolia tripetala** (L.) L.* (*Magnolia virginiana* var. *tripetala* L.*)—Magnoliaceae
81. above. **Swietenia mahagoni** (L.) Jacq. (*Cedrela mahag.* L.*)—Meliaceae
81. below. **Phoradendron rubrum** (L.) Griseb.* (*Viscum rubrum* L.*)—Loranthaceae
82. **Bignonia capreolata** L.—Bignoniaceae
83. **Ptelea trifoliata** L.—Rutaceae
84. above. **Philadelphus inodorus** L.*—Saxifragaceae
84. below. **Smilax lanceolata** L.—Smilacaceae
85. **Asimina triloba** (L.) Dunal* (*Annona triloba* L.*)—Annonaceae
86. **Annona reticulata** L.—Annonaceae
87. above. **Manilkara bahamensis** Lam & Meeuse (*Sloanea emarginata* L.*)—Sapotaceae
87. below. **Ipomoea microdactyla** Griseb.—Convolvulaceae
88. left. **Epidendrum plicatum** Lindley—Orchidaceae
88. right. **Epidendrum cochleatum** L.—Orchidaceae
89. **Tillandsia balbisiana** (Schultes) Roemer & Schultes—Bromeliaceae
90. **Hibiscus tiliaceus** L.—Malvaceae
91. above. **Cordia sebestena** L.—Boraginaceae
91. below. **Ipomoea carolina** L.*—Convolvulaceae
92. **Plumeria rubra** L.—Apocynaceae
93. above. **Plumeria obtusa** L.*—Apocynaceae
93. below. **Passiflora cuprea** L.*—Passifloraceae
94. **Coccoloba diversifolia** Jacq.—Polygonaceae
95. above. **Hippomane mancinella** L.—Euphorbiaceae

95. below. **Dendropemon purpureum** (L.) Krug & Urban* (*Viscum purpureum* L.*)—Loranthaceae
96. **Coccoloba uvifera** (L.) L.—Polygonaceae
97. **Pithecellobium bahamense** Northrop—Leguminosae
98. **Kalmia latifolia** L.—Ericaceae
99. **Clusia rosea** Jacq.—Clusiaceae
100. **Catesbaea spinosa** L.* (*Catesbaea* L.*)—Rubiaceae

APPENDIX

1. **Dodecatheon meadia** L.*—Primulaceae
2. **Hamamelis virginiana** L.—Hamamelidaceae
3. **Cypripedium acaule** Aiton (*Cypripedium catesbianum* Raf.*)—Orchidaceae
4. **Rhus glabra** L.—Anacardiaceae
5. **Hymenocallis caroliniana** (L.) Herb.* (*Pancratium carolinianum* L.*)—Amaryllidaceae
6. **Theobroma cacao** L.*—Sterculiaceae
7. **Vanilla mexicana** Miller—Orchidaceae
8. **Lilium philadelphicum** L.—Liliaceae
9. **Anacardium occidentale** L.—Anacardiaceae
11. **Lilium canadense** L.—Liliaceae
12. **Zephyranthes atamasco** (L.) Herb.—Amaryllidaceae
13. **Stewartia malacodendron** L.—Theaceae
15. **Magnolia acuminata** (L.) L.* (*Magnolia virginiana* var. *acuminata* L.*)—Magnoliaceae
16. **Panax quinquefolius** L.—Araliaceae
17. left. **Kalmia angustifolia** L.—Ericaceae
17. right. **Rhododendron maximum** L.—Ericaceae
18. **Ficus citrifolia** Miller—Moraceae
20. **Robinia hispida** L.—Leguminosae

ARNOLD ARBORETUM

22 DIVINITY AVENUE

CAMBRIDGE, MASSACHUSETTS 02138